

ABSTRACT

A circulating system (10) for circulating a fluid (24) from a fluid source (28) around an attraction only type actuator (12) is provided herein. The actuator (12) includes a first core (18), a second core (22), and a tubular conductor (20). The circulating system (10) includes a circulation housing (26) and a fluid inlet (60). The circulation housing (26) is sized and shaped to encircle the conductor (20) and provide a fluid passageway (44) between the circulation housing (26) and the conductor (20). The fluid inlet (60) extends into the fluid passageway (44) and is in fluid communication with the fluid source (28). Fluid (24) from the fluid source (28) is directed through the fluid inlet (60) into the fluid passageway (44). Preferably, the flow rate of the fluid (24) is controlled to maintain an outer surface (96) of the circulation housing (26) at a set temperature to control the influence of the actuator (12) on the surrounding environment and the surrounding components.